

Appl. No. 10/605,030  
Amtd. dated December 08, 2005  
Reply to Office action of September 09, 2005

**Amendments to the Drawings:**

Please replace original Fig.4 with the replacement sheet for Fig.4 included in this response.

Attachment: Replacement Sheet (Fig.4) 1 page(s)

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### REMARKS

**The following features must be shown or the features canceled from the claims: claim 9, the feature “wherein during the update...no data access... is allowed”; and claim 18, the feature “forbidding any data access ... during the update”**

5       Applicant has amended claim 9 to be dependent on claim 2 and to state that during the update of the firmware stored in the NVM, the bus controller is for preventing data access between the processor and the NVM. No new matter is entered by this amendment. In this way, the features of claim 9 are shown in original Fig.2 wherein the bus controller 44 prevents data access between the processor 36 and the NVM 32 during the update.

10      Applicant has amended claim 18 to be dependent on claim 11 and to state preventing any data access between the processor and the NVM during the update of the firmware stored in the NVM by utilizing the bus controller. No new matter is entered by this amendment. In this way, the features of claim 9 are shown in original Fig.2 wherein the bus controller 44 prevents data access between the processor 36 and the NVM 32 during the update.

15      **The drawings are objected to under 37 USC 1.840 because the following drawing elements lack meaningful legends : Fig.4 elements 95 and 96**

20      Applicant has included a replacement sheet for Fig.4 that includes the following new legends: Element 95: “Command bits”, and Element 96: “Command registers”. No new matter is entered by this amendment. In particular, refer to original paragraph [0024] for support of the legends labels for elements 95 and 96 in the replacement sheet for Fig.4.

Claim 11 is objected to because of the following informalities: “datatransmission” is a typo

Applicant has amended claim 11 to correct the above mentioned typo. No new matter is entered.

25      The summary is objected to because it states two contradictory concepts, first , that the

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**bus controller directly updates the firmware in the NVM, and second that the control interface updates data stored in the NVM.**

Applicant has amended paragraph [0008] to clarify the grammar such that an objective of the claimed invention is “to provide a processing system having a bus controller, the processing system for updating firmware stored in a non-volatile memory without utilizing a processor to solve the above-mentioned problems.” No new matter is entered by this amendment. In this way, the objective of the invention does not contradict with the control interface updating data stored in the NVM in the exemplary embodiment.

10 **The specification is objected to, because it contains non-idiomatic English language, the specification should be corrected for the same non-idiomatic English language as already rejected the claims.**

Applicant has amended paragraphs 24, 41, 45, 50, and 68 to correct the same claim language as was rejected in the claims. In particular:

15 Paragraph [0024] is amended to replace ‘setting’ and ‘executing’ with the term ‘specifying’ for the registers because registers are passive agents not capable of setting or executing. Additionally, the term ‘increased’ is replaced with ‘incremented’ as suggested by the Examiner because increasing addresses is unclear in scope of meaning of the activity being performed. No new matter is entered.

20 Paragraph [0041], [0045], [0050], [0068] are amended to replace the term ‘prior’ with ‘previous’ because the term prior is grammatically confusing. Applicant points out the previous piece of data is data that has already been stored in the NVM prior to the current piece of data. (see paragraph [0041] and the corresponding description Fig.5). No new matter is entered by these amendments.

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**The specification contains typos. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52a and b is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.**

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Applicant has additionally amended paragraph [0021] to correct unclear English grammar. No new matter is entered.

Provided above in the "Amendments to the Specification" section of this office action response is a clean substitute specification according to the request by the Examiner.

5 Applicant has incorporated all the above described amendments into the substitute specification as provided. Additionally, due to the original electronic filing process of the above-identified application inadvertently deleting some of the spaces between adjacent words, the clean substitute specification provided above also corrects these types of missing space between word typos. The substitute specification contains no new matter.

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Claim 1 is indefinite because "prior piece of data" and "current piece of data" are not clear, prior to what? And current with respect to what? / Claim 1 is also indefinite because "for comparison" is not clear, there is missing what two things the comparison is made between.

15       Applicant has amended claim 1 to replace the term 'prior' with 'previous' because the term 'prior' is grammatically confusing. Therefore, claim 1 now states that when the NVM control interface updates a current piece of data stored in the NVM, the NVM control interface is for first reading a previous piece of data being already updated in the NVM prior to the current piece of data. No new matter is entered by this amendment. The relationship 20 between the previous piece of data and the current piece of data is now clear. That is, the previous piece of data is data already updated in the NVM prior to the current piece of data, and the current piece of data is the particular data that the NVM is currently updating.

Additionally, claim 1 is amended to state that the previous piece of data is transited to the computer for comparison with original data that was previously stored in the NVM, if the previous piece of data and the original data are identical, the NVM control interface updates the current piece of data. No new matter is entered. The data which is being compared (ie, the original data and the previous piece of data) are now evident to make clear how one is to perform the comparison activity.

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**Claims 3 and 12 are indefinite because “capable of” does not positively recite whether or not the loading takes place.**

5      Applicant has amended claims 3 and 12 to replace the indefinite term “capable of” with the definite term “for”. No new matter is entered.

**Claims 6 and 15 are indefinite because “prior piece of data” is non-idiomatic English, is not clear, prior to what?**

10     Applicant has amended claim 6 and 15 to replace the term ‘prior’ with ‘previous’ because the term ‘prior’ is grammatically confusing. No new matter is entered. Please see the remarks regarding claim 1 for more information on the reasoning behind this amendment.

15     **Claims 8 and 17 are indefinite because “an address...is increased”, is non-idiomatic English, addresses can be incremented but “increasing” addresses is unclear in scope of meaning**

Applicant has amended claims 8 and 17 to replace the term ‘increased’ with ‘incremented’ as suggested by the Examiner because increasing addresses is unclear in scope of meaning of the activity being performed. No new matter is entered.

20     **Claims 8 and 17 are indefinite because “an NVM page register for setting a download capacity” is non-idiomatic English, registers do not set capacities because they are passive elements / because “the address set by the NBVM address register” is non-idiomatic English, registers do not set values because they are passive elements / and because “command registers for executing commands” is non-idiomatic English, registers do not execute commands because they are passive elements**

25     Applicant has amended claims 8 and 17 to replace the terms “setting” and “executing” with the term “specifying” because passive elements such as registers can be utilized for the purposes of specifying a value or a command as is illustrated in Fig.4 and the accompanying

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operational description in the specification. No new matter is entered. (See original paragraph [0024].)

5 **Claim 9 is indefinite because “no data access...is allowed” is not clear, there is missing essential subject matter as the claim omits what element in the invention prohibits the data access**

As previously mentioned, applicant has amended claim 9 to be dependent on claim 2 and to state that during the update of the firmware stored in the NVM, the bus controller is for preventing data access between the processor and the NVM. No new matter is entered by this 10 amendment. In this way, it is clear that the element in the invention that prohibits the data access is the bus controller 44 shown in Fig.2.

15 **Claim 10 is indefinite and rejected under 35 USC 101 because it merely recites a use without any active, positive steps delimiting how this use is actually practiced**

Applicant has amended claim 10 to restate the steps in terms of active, positive steps delimiting how the process is to actually be practiced. In particular, the method contains updating, reading, transmitting, and updating steps. No new matter is entered. (See the steps of original claim 10.)

20 **Claim 10 is also indefinite because “prior piece of data” is non-idiomatic English, is not clear, prior to what?**

Applicant has amended claim 10 to replace the term ‘prior’ with ‘previous’ because the term prior is grammatically confusing. No new matter is entered. Please see the remarks regarding claim 1 for more information on the reasoning behind this amendment.

25 **Claim 10 is also indefinite because “for comparison” is not clear, there is missing essential subject matter because a comparison must be made between two or more things**

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Applicant has amended claim 10 to state “transmitting the previous piece of data to the computer for comparison with original data that was previously stored in the NVM, if the previous piece of data and the original data are identical, then updating the current piece of data”. No new matter is entered; see step 58 [paragraph 0035]. In this way, the two things 5 that are being compared (original data and previous piece of data) are clearly stated.

**Claim 18 is indefinite because “forbidding any data access...during update” is not clear, there is missing essential subject matter as the claim omits what element in the invention forbid the data access**

10 As previously mentioned, applicant has amended claim 18 to be dependent on claim 11 and to state “preventing any data access between the processor and the NVM during the update of the firmware stored in the NVM by utilizing the bus controller”. No new matter is entered by this amendment. In this way, it is clear that the element in the invention that prohibits the data access is the bus controller 44 shown in Fig.2.

15 No new matter is entered by this office action response. Reconsideration of claims 1-18 is respectfully requested in view of the above-described amendments.

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Sincerely yours,

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Date: 12/08/2005

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